

REMARKS

In the examiner's action mailed June 4, 2003, the examiner rejected all pending claims 1-34. Claims 18 and 29 are amended to correct typographical errors. No new matter is introduced by these amendments. Applicants respectfully request reconsideration in view of the amendment and the following remarks.

Claims 1-9

The examiner rejected claims 1, 3, 7 and 9 under 35 U.S.C. 102(e) as being anticipated by Kishida et al. (US 2002/0015008 A1). Of these claims, claim 1 is independent, and claims 3, 7 and 9 depend from claim 1. The examiner also rejected dependent claims 2, 4-6 and 8 under 35 U.S.C. 103(a) based on Kishida et al., either alone or combined with other references.

Applicants respectfully traverse the rejection, and submit that independent claim 1 defines an invention that is patentable, as do dependent claims 2-9. Although applicants traverse the rejection based on Kishida, this traversal is not to be taken as an admission that Kishida is, or is not, prior art under 35 U.S.C. 102(e).

Applicants' independent claim 1 is directed to a wearable computer system that includes, firstly, a computer unit wearable by a user and, secondly, a user interface having at least an audio-only mode of operation. The user interface includes an audio receiver and a speaker, both of which are wearable by the user and connectable to the computer unit. The audio receiver receives voice signals from the user and provides the voice signals to the computer unit for processing. The computer unit sends audio signals to the speaker to provide output to the user.

Kishida discloses a computer system that includes a wearable computer and a wearable display device. (Abstract.) As shown in Figures 2A, 2B and 15, all of the examples of the computer system include a headset that is provided with a display 100 and a mirror 101 (Figs. 2A and 2B).

Applicants submit that Kishida does not anticipate applicants' invention as set forth in independent claim 1. In particular, Kishida does not disclose a wearable computer system having a user interface having an audio-only mode of operation, as is required by claim 1. No such mode of operation is described in Kishida. Although the examiner stated in paragraph 2 of

the Action that the wearable computer system has an audio-only mode of operation and makes reference to reference number 24 in Figure 3, the cited support does not support the examiner's statement. To further illustrate the fact that Kishida does not disclose an audio-only mode of operation, Kishida explains that its disclosure is directed to designs whose objective it is to provide an advantageous placement of the display controller – namely, that it be placed in the display device 2 as opposed to in the computer 1 (see paras. 0007 and 0037-0040). Where such a display is not used, as is the case with applicants' claim 1, such a configuration as described in Kishida is not needed.

Neither does Kishida or any other reference of record render applicants' claim 1 obvious. Applicants' configuration and its audio-only mode of operation offers advantages not taught by Kishida or any other reference. In particular, applicants' claimed wearable computer system, as discussed on page 9, lines 3-11 of applicants' specification, blend in with the natural environment of the user, and is minimally obtrusive to the movements and actions of the user. Also, the audio-only user interface does not require the use of noticeable visual displays, such as a visor display or an eyeglass display.

Accordingly, independent claim 1 defines an invention that is patentable over Kishida, as do dependent claims 2-9. As such, applicants request that the examiner remove the rejection of these claims.

Claims 10-17

The examiner rejected claims 10-11, 13-15 and 17 under 35 U.S.C. 103(a) as being unpatentable over Kishida. Of these claims, only claim 10 is an independent claim. In addition, the examiner rejected dependent claims 12 and 16 under 35 U.S.C. 103(a) as being unpatentable over Kishida in combination with other references.

Applicants respectfully traverse the rejection, and submit that independent claim 10 defines an invention that is patentable, as do dependent claims 11-17.

Applicants' independent claim 10 is directed to a wearable computer system that includes, firstly, a computer unit wearable by a user and, secondly, a user interface having an audio-only mode of operation. The user interface includes a first audio receiver and a second

audio receiver. The first audio receiver is adapted to be worn by the user and is connectable to the computer unit such that the first audio receiver receives voice signals from the user and provides the voice signals to the computer unit for processing. The second audio receiver is adapted to be worn by the user and is connectable to the computer unit such that the second audio receiver inputs audio signals from user's surroundings to the computer unit. The audio signals received by the first audio receiver that do not originate with the user are filtered with an audio filter.

Applicants submit that Kishida does not anticipate applicants' invention as set forth in independent claim 10 for at least two reasons. First, Kishida does not disclose a wearable computer system having a user interface having an audio-only mode of operation, as is required by claim 10, and which has been discussed previously in connection with claim 1. Second, Kishida does not disclose, as required by claim 10, a wearable computer system having the two audio receivers (the claimed first and second audio receivers), and wherein the audio signals received by the first audio receiver that do not originate with the user are filtered with an audio filter. Although the examiner contends that Kishida discloses an audio filter (and refers to reference number 27 of Figure 3, as well as page 3, paragraph 0045), applicants respectfully disagree. Contrary to what the examiner has contended, nowhere does Kishida disclose that the control section 27 includes a filter that filters the audio signals received by the first audio receiver that do not originate with the user.

Neither does Kishida or any other reference of record render applicants' claim 10 obvious. First, Kishida does not suggest the advantages offered by the claimed system having an audio-only mode of operation, as has been discussed previously in connection with claim 1. Second, the filtering feature of claim 10 provides advantages not suggested by Kishida or any other reference. As discussed in applicants' specification at page 7, even if the user is in a noisy environment, the audio filter associated with the personal microphone 36 filters the environmental noise and properly inputs the user's voice command.

Accordingly, independent claim 10 defines an invention that is patentable over Kishida, as do dependent claims 11-17. As such, applicants request that the examiner remove the rejection of these claims.

Claims 18-22

The examiner rejected claims 18-19 and 21-22 under 35 U.S.C. 103(a) as being unpatentable over Kishida. Of these claims, only claim 18 is an independent claim. In addition, the examiner rejected dependent claim 20 under 35 U.S.C. 103(a) as being unpatentable over Kishida in view of Anderson.

Applicants respectfully traverse the rejection, and submit that independent claim 18 defines an invention that is patentable, as do dependent claims 19-22.

Applicants' independent claim 18 is directed to a wearable computer system that includes an audio receiver and a computer unit. The audio receiver is wearable by a user, receives audio signals from the user, and produces a corresponding electrical signal. The computer unit includes circuitry that receives and digitizes the electrical signal corresponding to the received audio signal. The computer unit also includes a processor and computer memory having instructions stored thereon that, when executed by the processor, perform the following operations: processes the digitized signals and recognizes spoken words therein; determines whether the recognized spoken words constitute a predetermined natural voice command that blends with the natural phrases and terminology commonly spoken by the user; and responds to the predetermined natural voice commands from the user by prompting the processor to execute a predetermined function.

Applicants submit that that Kishida does not anticipate applicants' invention as set forth in independent claim 18. In particular, Kishida does not disclose the use of a predetermined natural voice command that blends with the natural phrases and terminology spoken by the user, as is required by claim 18. More specifically, claim 18 requires that the claimed instructions stored in the claimed memory include instructions that, when executed by the processor, determines whether the recognized spoken words constitute a predetermined natural voice command that blends with the natural phrases and terminology commonly spoken by the user.

Although Kishida describes, in paragraph 0045, the use of voice recognition and the use of a "voice signal" that causes an operation control command to be sent to the computer 1, Kishida does not disclose the use of a natural voice command that blends with the natural phrases and terminology spoken by the user, as required by claim 18. Indeed, Kishida does not even describe the type of "voice signal" that is to be used with the Kishida system.

Neither does Kishida or any other reference of record render applicants' claim 18 obvious. In particular, Kishida does not suggest the advantages offered by the claimed system that makes use of a natural voice command that blends with the natural phrases and terminology spoken by the user. As discussed in applicants' specification in the paragraph extending from page 9 to 10, with the use of such a natural voice command, the issuance of a voice command by the user may be done in a way that does not disrupt the conversation. For example, the phrase, "Nice to meet you," is a standard statement that is commonly spoken during an introduction between two people. This standard phrase may be used as a natural voice command to execute a function, or series of functions, by the wearable computer system based on the event of meeting a new person.

Accordingly, independent claim 18 defines an invention that is patentable over Kishida, as do dependent claims 19-22. As such, applicants request that the examiner remove the rejection of these claims.

Claims 23-34

The examiner rejected claims 23, 27-29 and 33-34 under 35 U.S.C. 103(a) as being unpatentable over Abbott et al. in view of Mitchell et al. (US 6,356,437 B1). Of these claims, claims 23 and 29 are independent claims. In addition, the examiner rejected dependent claims 24-26 and 30-32 under 35 U.S.C. 103(a) as being unpatentable over Abbott et al. in view of Mitchell et al., further in view of Strub et al. (US 6,563,532 B1).

Applicants respectfully traverse the rejection, and submit that independent claims 23 and 29 each define an invention that is patentable, as do dependent claims 24-28 and 30-34. Although applicants traverse the rejection, this traversal is not to be taken as an admission that

either Mitchell or Abbott is, or is not, properly considered prior art under any provision of 35 U.S.C. 102.

Applicants' independent claim 23 is directed to a method of operating a wearable computer system that includes a computer unit wearable by a user and a user interface with at least an audio-only mode of operation. The method includes continuously storing in a scrolling buffer audio information received by a microphone that receives ambient audio information at the user's location. The method also includes, upon receiving an predetermined voice command from the user, storing in memory audio information present in the buffer for some period of time in relation to the time the audio command was received, so that the audio information stored in memory may be retrieved at a later time.

Applicants' independent claim 29 is directed to a wearable computer system that includes, among other things, a computer unit having a scrolling buffer in which ambient audio information received during a preceding predetermined period of time is stored. The computer unit also includes memory and circuitry that, upon receiving a predetermined voice command from the user, stores in the memory audio information present in the buffer for some period of time in relation to the time the audio command was received, so that the audio information stored in memory may be retrieved at a later time.

Applicants submit that the combination of Abbott and Mitchell does not render obvious applicants' invention as set forth in either independent claim 23 or independent claim 29. In particular, neither reference discloses, as required by both claim 23 and claim 29, ambient audio information being continuously stored in a scrolling buffer and, upon receiving a predetermined voice command, audio information present in the buffer being stored in memory for some period of time in relation to the time the voice command was received so that the audio information stored in memory may be retrieved at a later time. Such a teaching is nowhere to be found in either Abbott or Mitchell, or any other reference of record. Indeed, the examiner has not addressed these features of claim 23 and 29 in the examiner's action.

Applicant : Dana Le et al.
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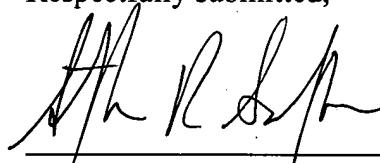
Attorney's Docket No.: 12587-018001 / D01-095

Accordingly, independent claims 23 and 29 each defines an invention that is patentable over the combination of Abbott and Mitchell, as do dependent claims 24-28 and 30-34. As such, applicants request that the examiner remove the rejection of these claims.

CONCLUSION

Applicants submit that claims 1-34, as amended, are in condition for allowance, and request that the examiner issue a notice of allowance. Enclosed is a \$420.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,



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